WHAT IS CLAIMED IS:

1. A method for manufacturing a crank arm and spider assembly comprising the following steps:
   (1) providing a blank;
   (2) shaping the blank to form a crank billet comprising an elongate body having a first end on which a spider is integrally formed and an opposite end having an expanded outside diameter;
   (3) forming a channel substantially co-extensive with the elongate body with an opening at the second end of the body;
   (4) reducing the expanded second end and thereby reducing inside diameter of the channel in proximity of the second for forming an entry of the channel;
   (5) filling a liquid into the channel through the entry and then sealing the entry;
   (6) placing the crank billet with the liquid filled in the channel into a mold and performing a mold forging operation to obtain a semi-product; and
   (7) forming a hole in the body to release the filling liquid out of the channel of the crank.

2. A bicycle crank arm and spider assembly comprising an elongate crank body in which a channel is formed, the crank body having a first end on which a spider is integrally formed as one piece and an opposite second end defining a hole.